

Claims 1, 3-6, 13-16 and 18 are amended and reproduced in clean copy as follows and it is requested that they be entered with the unamended claims also included here.

1. An earthquake resistant structure comprising:

a construction block having an upper surface and a lower surface and sides surfaces;

aggregate pieces within said block lower extent adjacent to said lower surface and forming the major extent of said lower surface;

said aggregate pieces each having a circumference in excess of 5 cm and being in direct firm contact with one another;

said aggregate pieces extending from and between said construction block sides;

said aggregate pieces held in contact with each other by mortar above said aggregate pieces so that said construction block provides a strong support for vertical forces applied to said upper surface and a strong resistance to horizontal vibrations of an earthquake applied to said side surfaces by transfer forces directly from one aggregate piece to another throughout said construction block lower extent.

2. An earthquake resistant structure as in claim 1 wherein:

a plurality of said construction blocks is placed adjacent to one another such that said aggregate pieces at one surface of one said block are in direct contact with said aggregate pieces of another adjacent said block such that forces on one block are transferred through said aggregate materials from one said block to another adjacent said block.

3. An earthquake resistant structure as in claim 1 wherein:

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said construction block is formed in the shape of a parallelepiped;

a plurality of said blocks is placed side by side adjacent to one another in the shape of an arch with said aggregate pieces of one said construction block contacting aggregate pieces in an adjacent said construction block.

4. An earthquake resistant structure as in claim 3 wherein:

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said parallelepiped blocks placed in the form of an arch have their intrados ends abutting each other and their extrados ends spaced from each other;

concrete is within a space between said blocks extrados ends.

5. An earthquake resistant structure as in claim 1 wherein:

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said construction block is formed in the shape of a tetrahedron with two essentially triangular sides and two parallel sides;

a plurality of said construction blocks is placed adjacent to one another such that said aggregate pieces on adjacent surfaces of one block are in direct contact with aggregate pieces of said adjacent block such that forces on one block are transferred directly through said aggregate pieces of one said block to said aggregate pieces of said adjacent block along their contacting surface.

6. An earthquake resistant structure as in claim 1 wherein:

said aggregate material consists of a coarse aggregate material having a circumference in

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excess of 20 cm. and a fine aggregate material having a circumference between 5 and 20 cm. in intimate contact with each other throughout said block.

7. An earthquake resistant structure as in claim 1 wherein:

said block has a tube therein extending from one said side to another said side for accommodating a prestress means.

8. An earthquake resistant structure as in claim 1 wherein:

said aggregate pieces are of a low quality material.

9. An earthquake resistant structure as in claim 8 wherein:

said aggregate pieces are slag.

10. An earthquake resistant structure as in claim 8 wherein:

said aggregate pieces are crushed stone.

11. An earthquake resistant structure as in claim 8 wherein:

said aggregate pieces are concrete chips.

12. An earthquake resistant structure as in claim 8 wherein:

said aggregate pieces are Sirasu.

13. A process for forming construction blocks to resist earthquakes comprising:

providing a mold having an upper extent and a lower extent in the desired shape of a construction block;

placing aggregate pieces having a circumference in excess of 5 cm. within said mold lower extent;

positioning said aggregate pieces within said mold lower extent so that said aggregate pieces are in firm contact with said mold sides and in firm contact with each other throughout said mold to form a lower surface;

pouring mortar over said positioned aggregate pieces so as to maintain their position and form an upper surface and form a block having a strong resistance to vertical forces applied to said upper surface and a resistance to horizontal vibrations of an earthquake by transferring forces applied directly from one aggregate piece to another;

removing said block from said mold.

14. A process for forming construction blocks as in claim 13 including:

forming said block in the shape of a parallelepiped;

placing a plurality of said blocks in side by side contacting relationship such that said aggregate pieces in one block contacts said aggregate pieces in an adjacent block so that horizontal force applied to one said block is transferred directly from said aggregate pieces in said one block to said aggregate pieces in said adjacent block.

15. A process for forming construction blocks as in claim 14 including:

D6 forming said blocks into the shape of an arch such that said blocks abut each other at their intrados ends and are spaced from each other at their extrados ends;

filling a space at said extrados ends with concrete to hold said blocks in place.

16. A process for forming construction blocks as in claim 13 including:

D7 forming a support structure in the shape of an arch;

placing said mold on one end of said support structure;

forming said block in place on said support structure;

curing said mortar on said supporting structure;

removing said mold and using it to form another said block adjacent to said previously formed block to manufacture said blocks adjacent to one another with said aggregate pieces of one said block in contact with said aggregate pieces of an adjacent said block.

17. A process for forming construction blocks as in claim 13 including:

placing a tube within said mold with said aggregate pieces to provide a conduit for a prestress means within said block.

18. A process for forming construction blocks as in claim 13 including:

D7 said aggregate pieces including both coarse aggregate pieces in excess of 25 cm. circumference and fine aggregate pieces between 5 cm. and 15 cm. circumference;

placing both said coarse aggregate pieces and said fine aggregate pieces within said mold

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such that said fine aggregate pieces fit between spaces between said coarse aggregate pieces and
such that said fine aggregate pieces and said coarse aggregate pieces are in intimate contact with
each other.

19. A process for forming construction blocks as in claim 13 including:
selecting said aggregate pieces from a low quality material.